

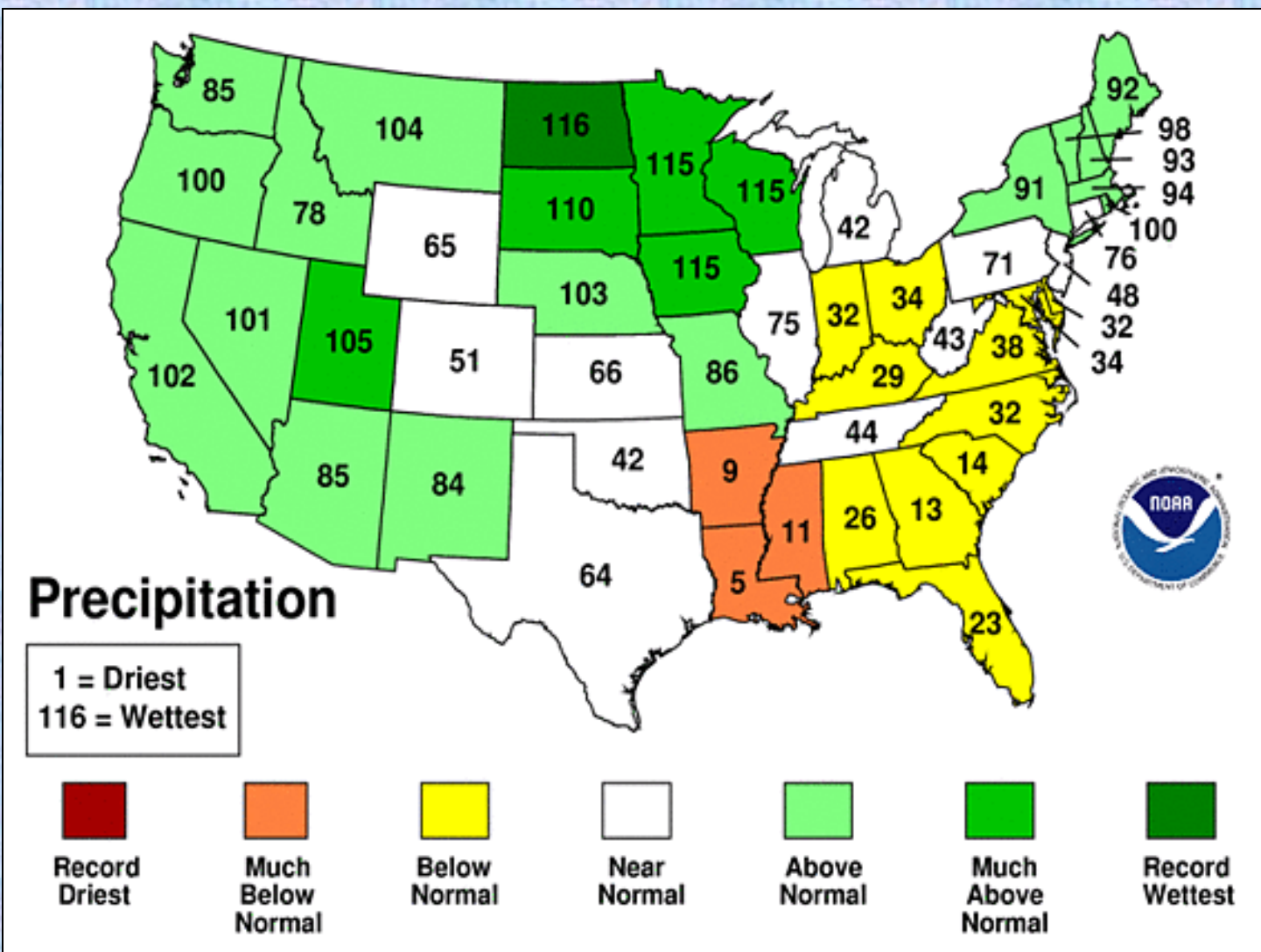
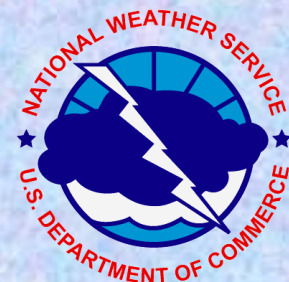


# ***The Weather Ahead***

***John Lewis, Senior Forecaster  
National Weather Service  
Little Rock, Arkansas***

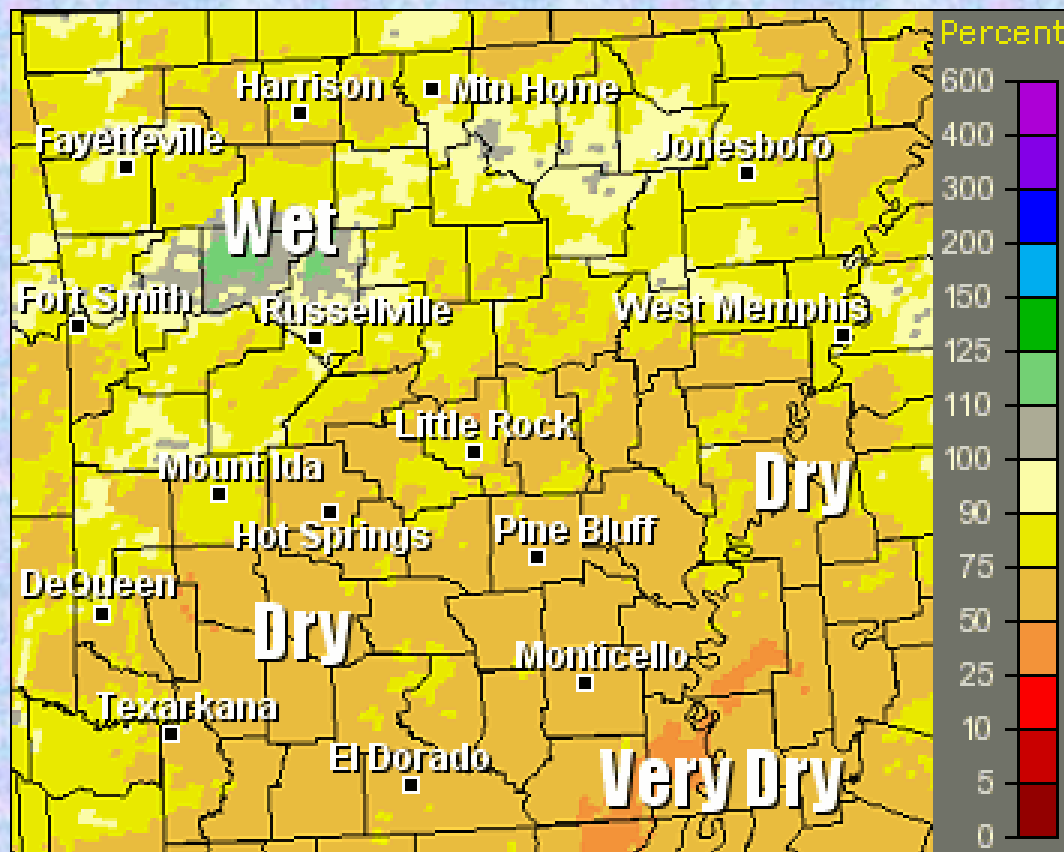
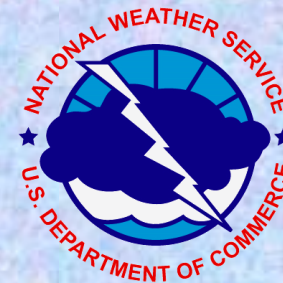


# In 2010





# ***A Lack of Rain***



***Percent of  
normal rainfall  
in 2010 .***



# ***A Lack of Rain 2010***

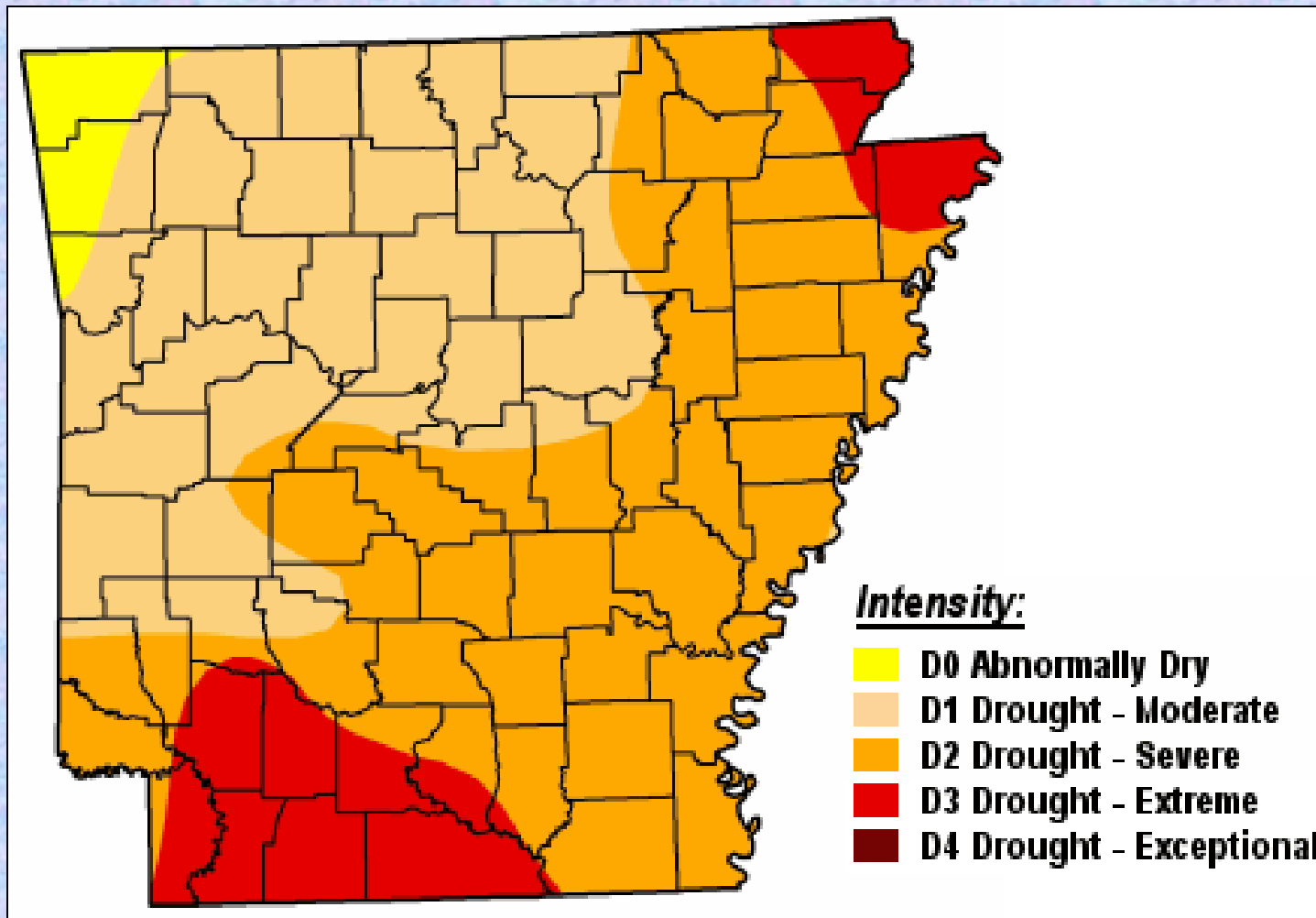
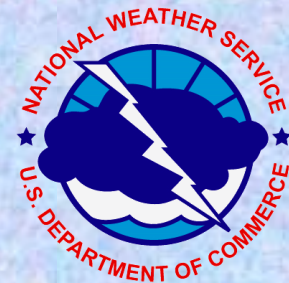


<b><i>Precipitation in 2010</i></b>				
<b>Site</b>	<b>Amount</b>	<b>+/-</b>	<b>% of Normal</b>	<b>Months Below Normal</b>
Fayetteville (NW AR)	42.15	-3.87	92%	09
Harrison (NC AR)	46.12	+0.92	102%	07
Jonesboro (NE AR)	32.22	-13.96	70%	10
Fort Smith (WC AR)	35.27	-8.60	80%	09
Little Rock (C AR)	36.52	-14.41	72%	10
West Memphis (EC AR)	51.83	-0.97	98%	07
Texarkana (SW AR)	29.53	-17.85	62%	11
El Dorado (SC AR)	34.23	-19.88	63%	08
Pine Bluff (SE AR)	31.97	-20.51	61%	09



# ***Drought Conditions***

## ***January 11, 2011***

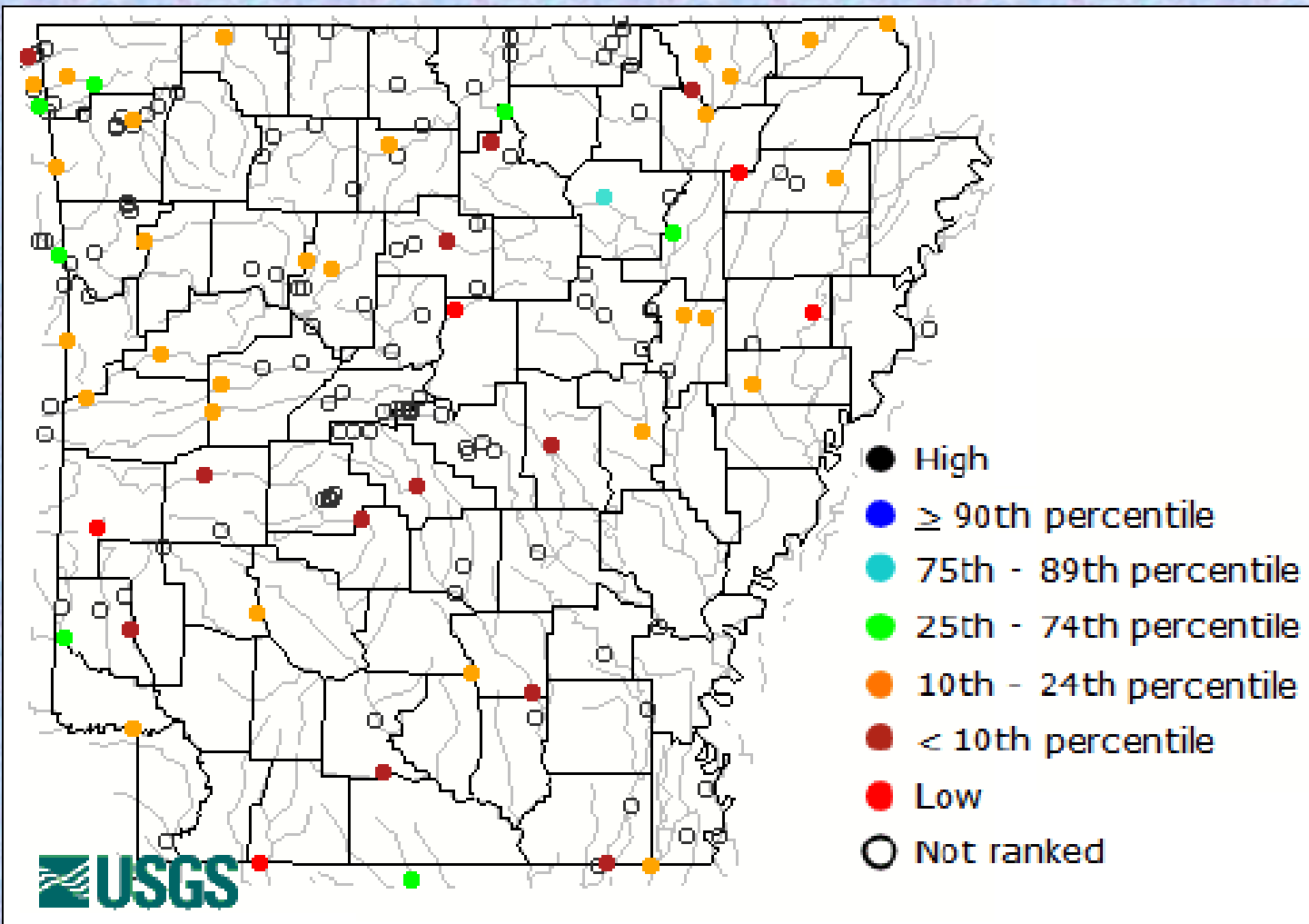
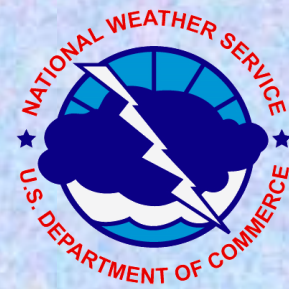






# Streamflow

## January 14, 2011

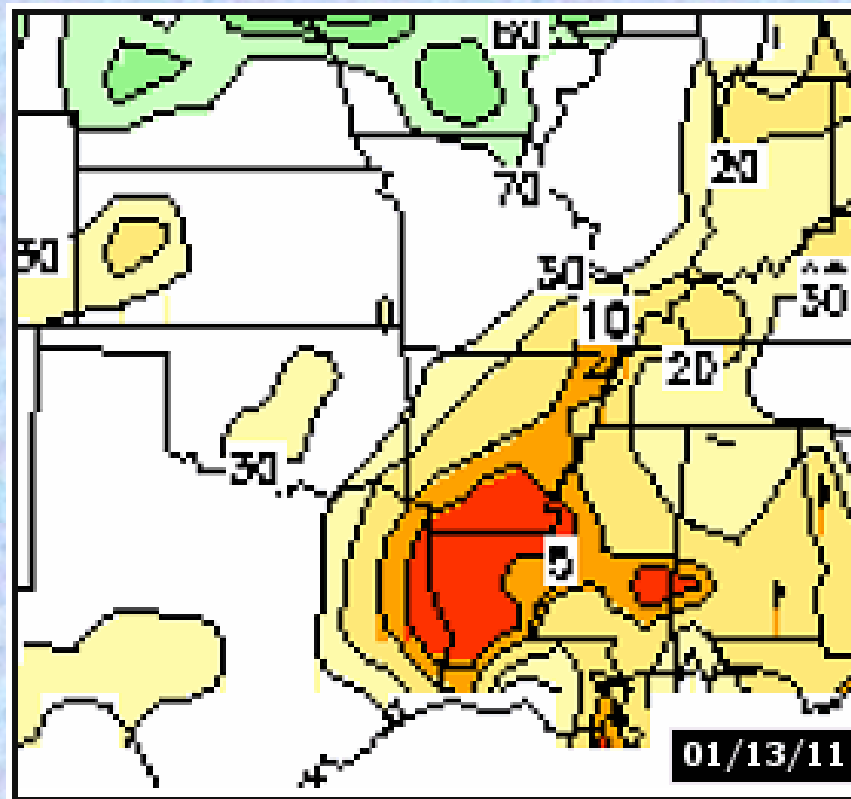
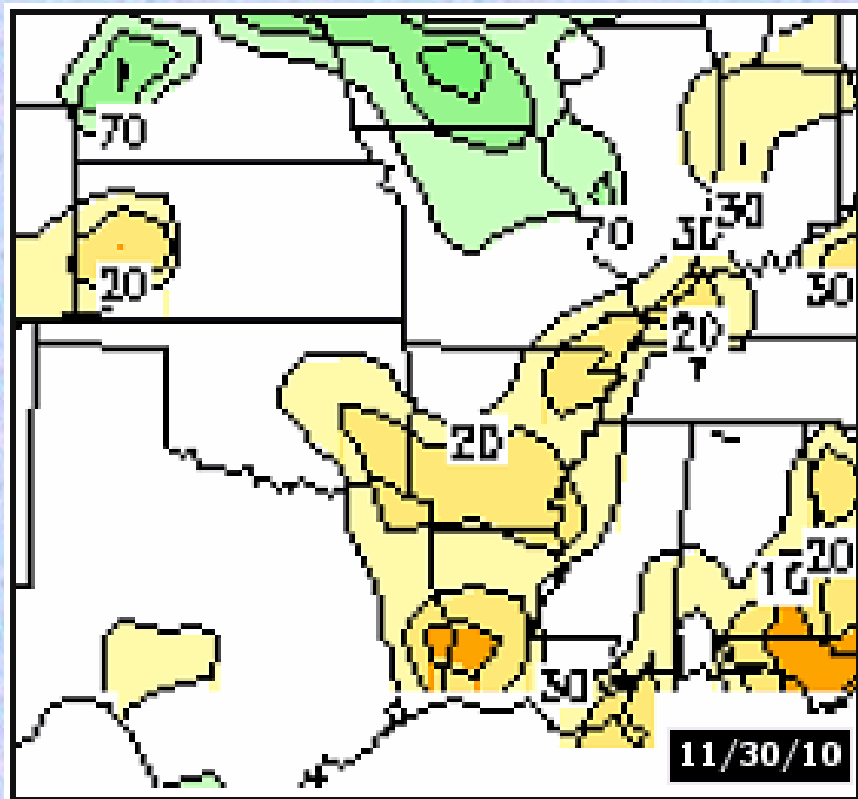
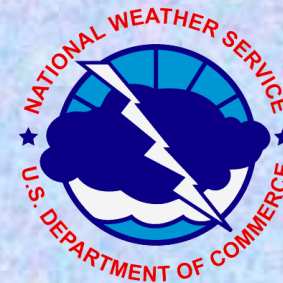




# ***Soil Moisture***

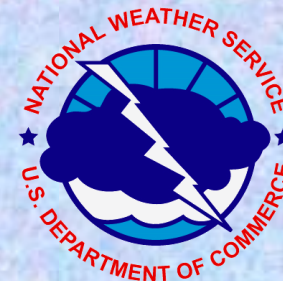
## ***November 30, 2010 -***

## ***January 13, 2011***





# A Lack of Rain Early 2011



## Precipitation

Site	Jan, 2011 Pcpn	+/-	Feb, 2011 Pcpn	+/-	Mar, 2011 Pcpn	+/-	Overall
Fayetteville (NW AR)	0.27	-1.87	3.70	+1.29	2.04	-2.13	-2.71
Harrison (NC AR)	0.25	-2.26	4.43	+1.72	2.35	-1.94	-2.48
Jonesboro (NE AR)	0.50	-2.79	5.36	+1.80	5.02	+0.57	-0.42
Fort Smith (WC AR)	0.51	-1.86	3.18	+0.59	0.80	-3.14	-4.41
Little Rock (C AR)	0.94	-2.67	4.04	+0.71	4.18	-0.70	-2.66
W Memphis (EC AR)	1.18	-2.89	2.86	-1.35	4.76	-0.77	-5.01
Texarkana (SW AR)	2.25	-1.32	2.22	-1.09	0.96	-3.13	-5.54
El Dorado (SC AR)	3.20	-1.73	2.34	-1.90	0.74	-4.41	-8.04
Pine Bluff (SE AR)	1.02	-3.19	3.51	-0.49	1.94	-3.14	-6.82





# ***Arctic Oscillation (AO)***



***This expresses how pressures are varying in the northern Atlantic.***

***This past winter (and in 2009), pressures were high over the North Pole...with lower than normal pressures in the mid-latitudes.***

***This created a strongly negative AO Index...the second lowest on record in December (behind December, 2009).***



# ***Arctic Oscillation (AO)***



***This expresses how pressures are varying in the northern Atlantic.***

***This past winter (and in 2009), pressures were high over the North Pole...with lower than normal pressures in the mid-latitudes.***

***This created a strongly negative AO Index...the second lowest on record in December (behind December, 2009).***



# **Arctic Oscillation (AO)**



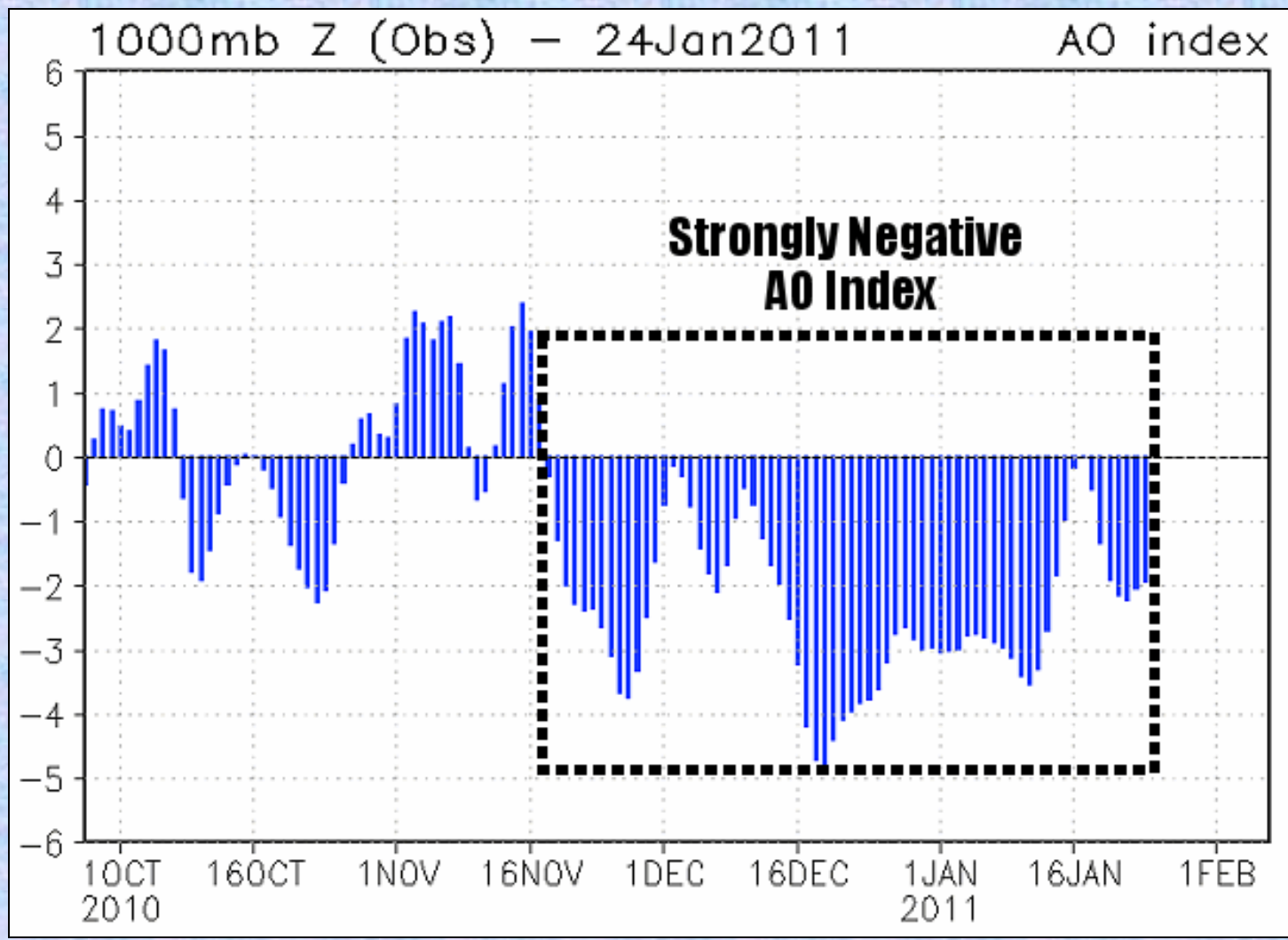
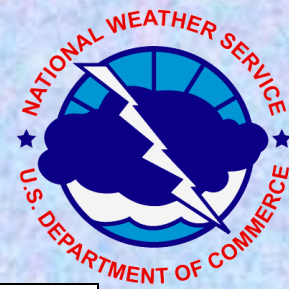
***This expresses how pressures are varying in the northern Atlantic.***

***This past winter (and in 2009), pressures were high over the North Pole...with lower than normal pressures in the mid-latitudes.***

***This created a strongly negative AO Index...the second lowest on record in December (behind December, 2009).***



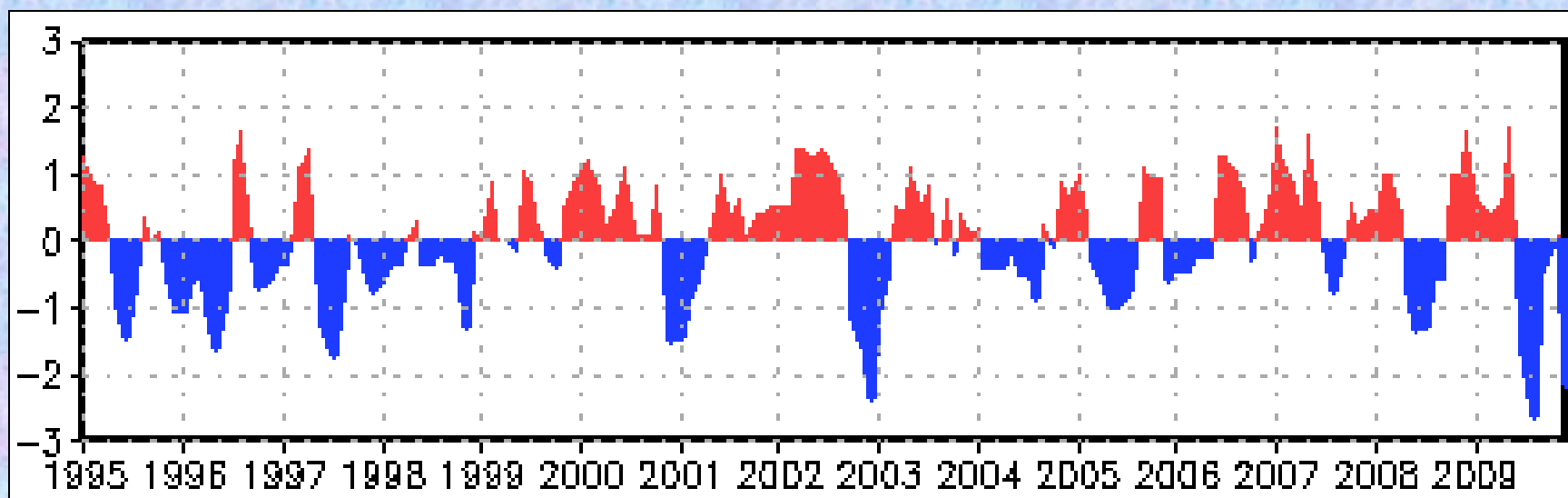
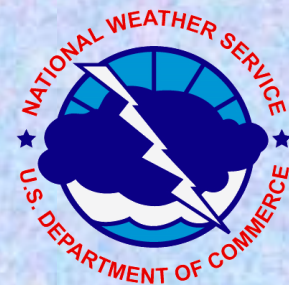
# Arctic Oscillation (AO)







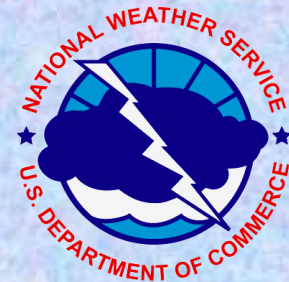
# ***A Closer Look at AO***







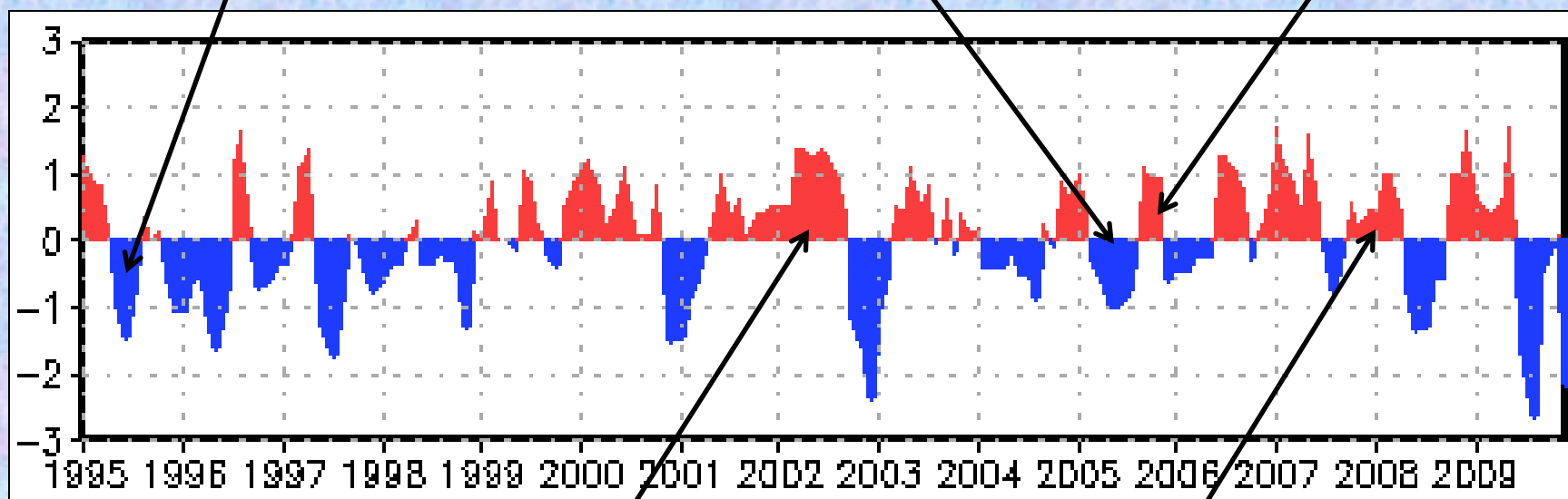
# ***A Closer Look at AO***



***1995: 6<sup>th</sup> Driest  
Summer at Little  
Rock (4.84")***

***Early 2005:  
Very Dry***

***Late 2005: A Wet  
Period (Rita)***

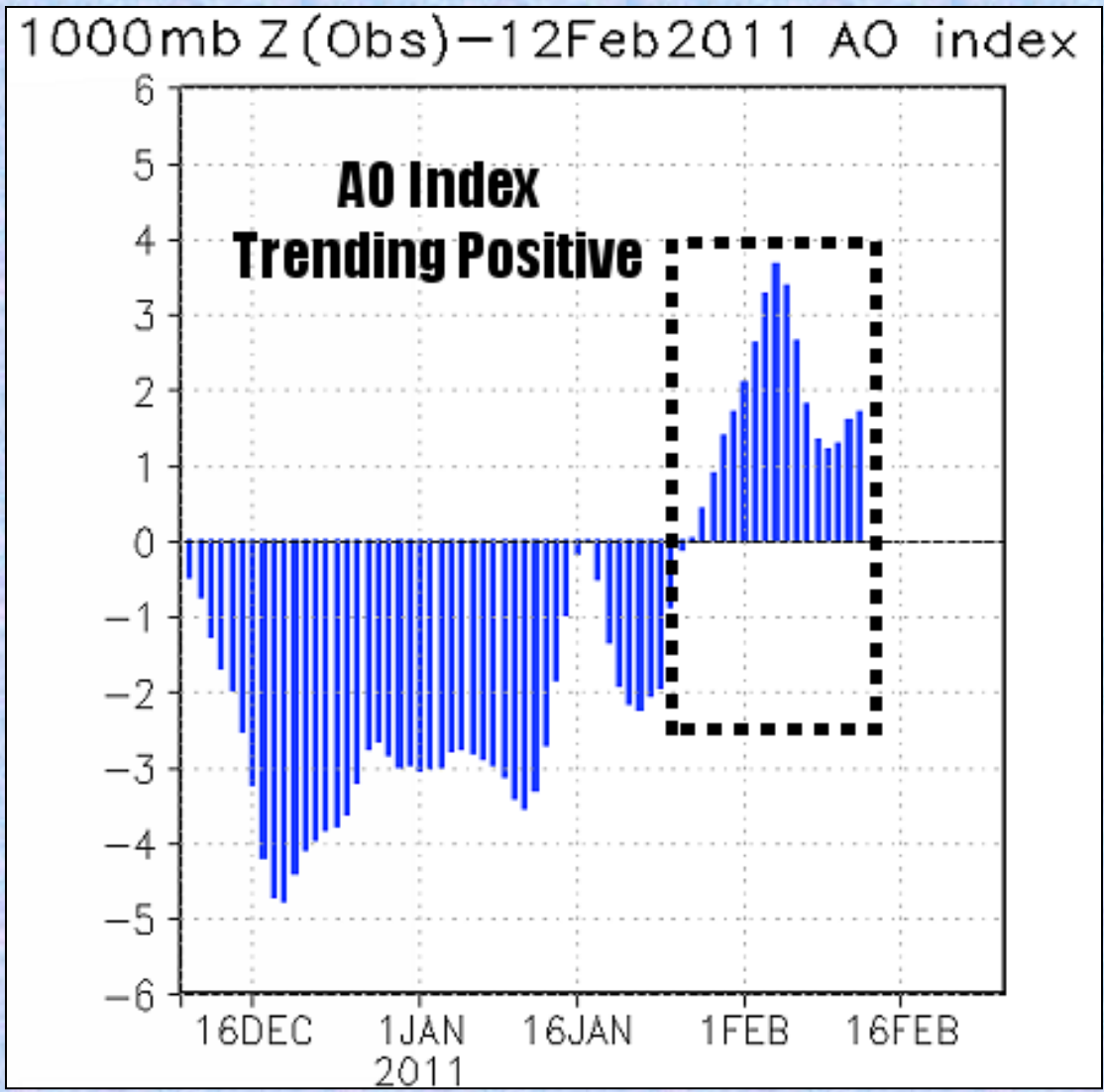
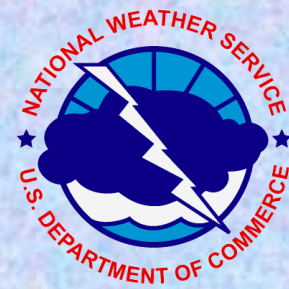


***Late 2001/Early 2002:  
Widespread Flooding***

***Early 2008: Tornadoes,  
Flooding & Heavy Snow***



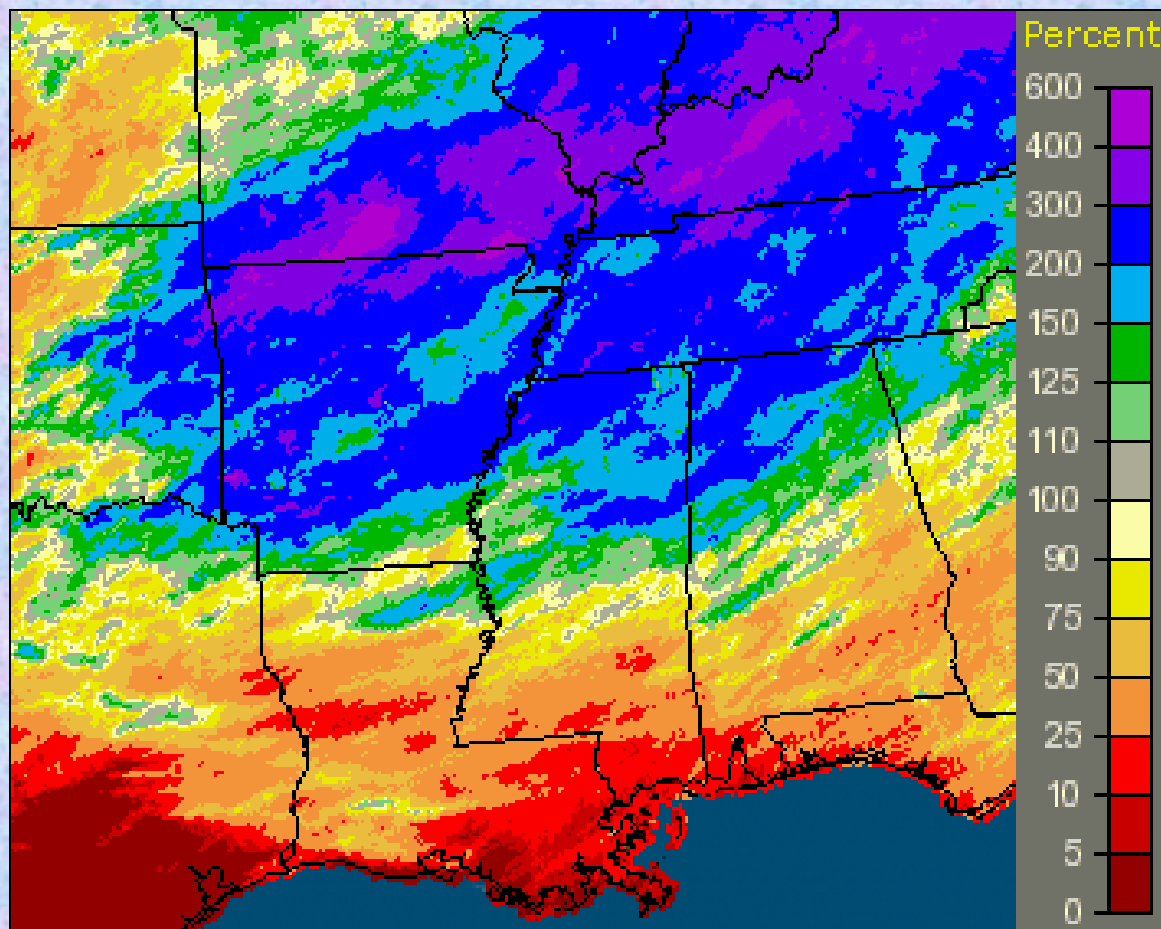
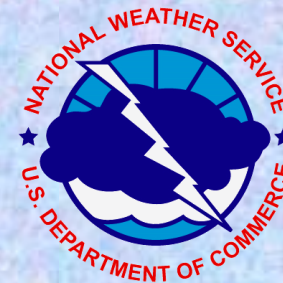
# Arctic Oscillation (AO)





# ***Big Time Rain***

## ***April, 2011***

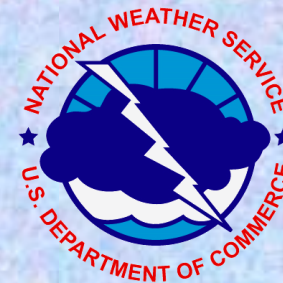


***Percent  
of normal  
rainfall.***



# ***Big Time Rain***

## ***April, 2011***



### ***Precipitation in April, 2011***

<b>Site</b>	<b>Amount</b>	<b>Normal</b>	<b>+/-</b>	<b>% of Normal</b>
Fayetteville (NW AR)	15.28	4.33	+10.95	353%
Harrison (NC AR)	14.73	4.10	+10.64	359%
Jonesboro (NE AR)	8.15	4.99	+3.16	163%
Fort Smith (WC AR)	9.55	3.91	+5.64	244%
Little Rock (C AR)	7.23	5.47	+1.76	132%
West Memphis (EC AR)	7.48	5.46	+2.02	137%
Texarkana (SW AR)	5.94	3.95	+1.99	150%
El Dorado (SC AR)	8.29	4.55	+3.74	182%
Pine Bluff (SE AR)	13.26	5.14	+8.12	258%



# ***Yearly Rainfall 2011***



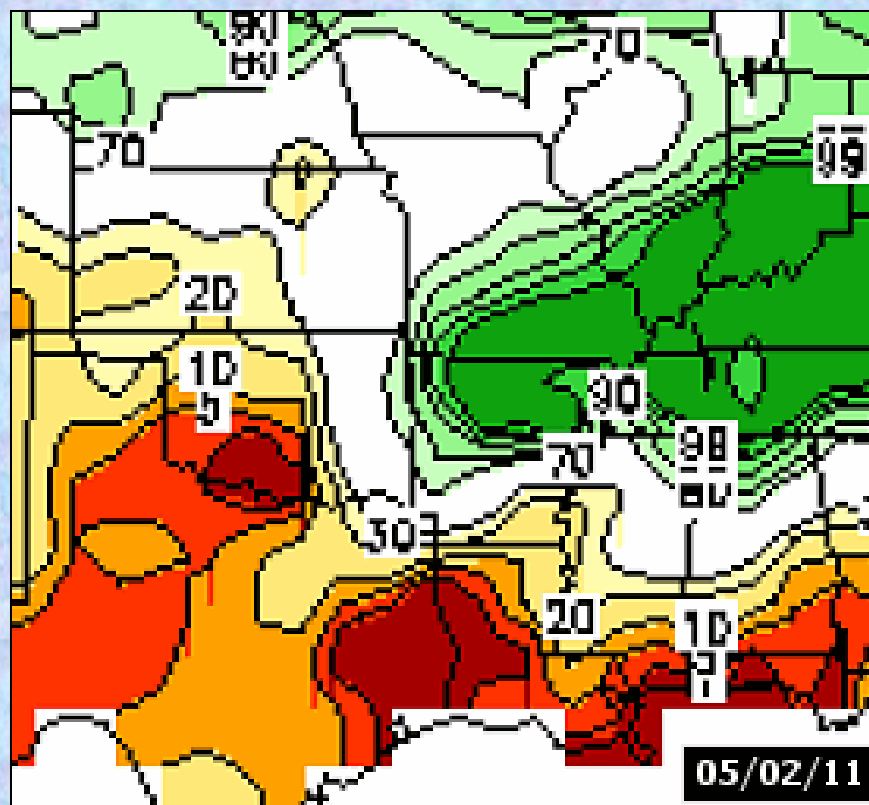
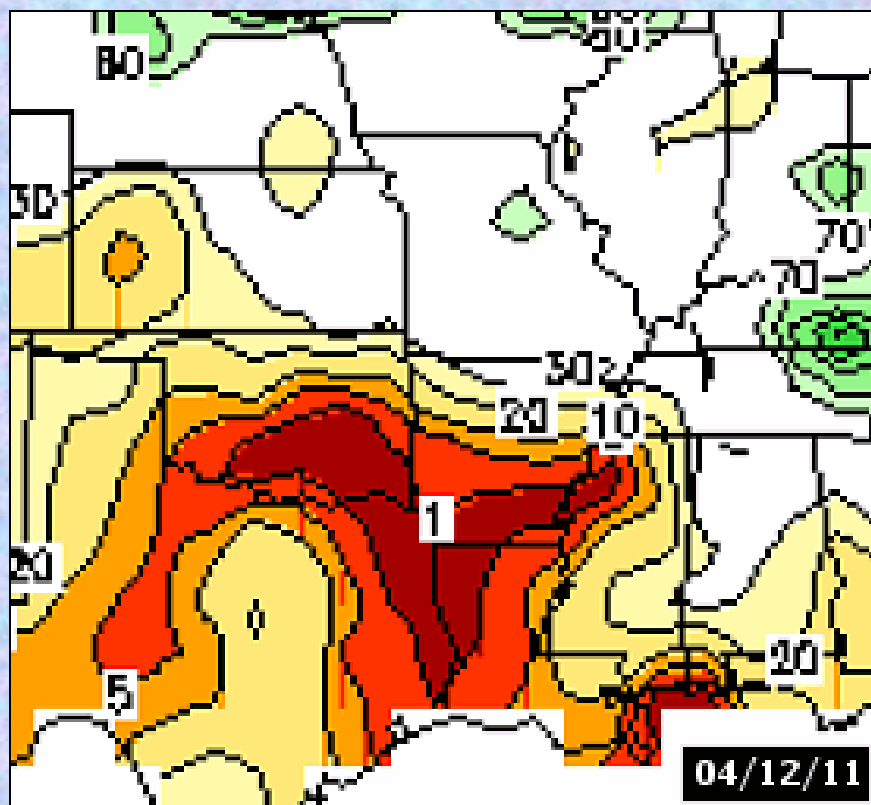
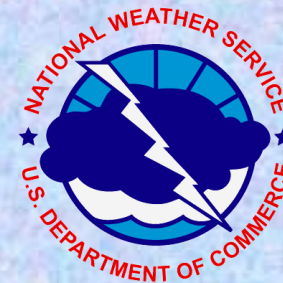
<b><i>Precipitation in 2011</i></b>			
<b>Site</b>	<b>Amount</b>	<b>+/-</b>	<b>% of Normal</b>
Fayetteville (NW AR)	21.29	+8.24	163%
Harrison (NC AR)	21.76	+8.16	160%
Jonesboro (NE AR)	19.03	+2.74	117%
Fort Smith (WC AR)	14.04	+1.23	110%
Little Rock (C AR)	16.39	-0.90	95%
West Memphis (EC AR)	16.28	-2.99	84%
Texarkana (SW AR)	11.36	-3.56	76%
El Dorado (SC AR)	14.57	-4.30	77%
Pine Bluff (SE AR)	19.73	+1.30	107%





# ***Soil Moisture***

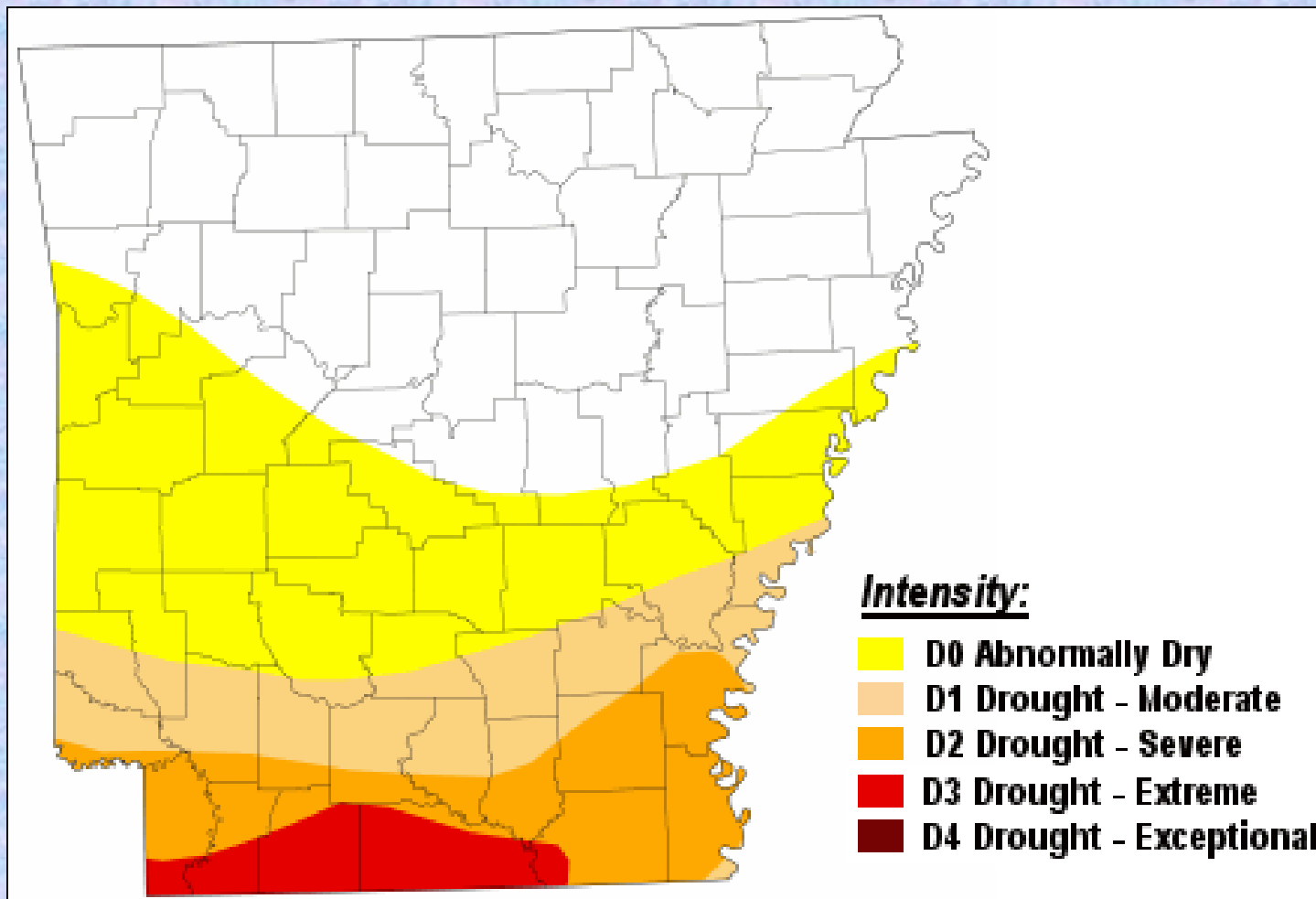
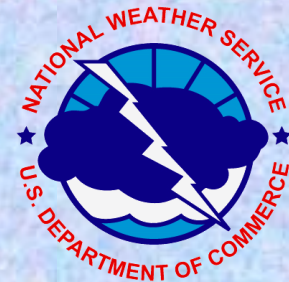
## ***April 12 - 26, 2011***

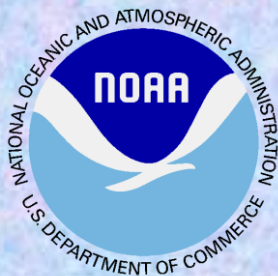




# ***Drought Conditions***

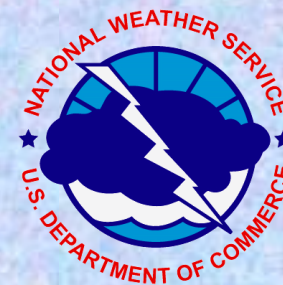
## ***April 26, 2011***



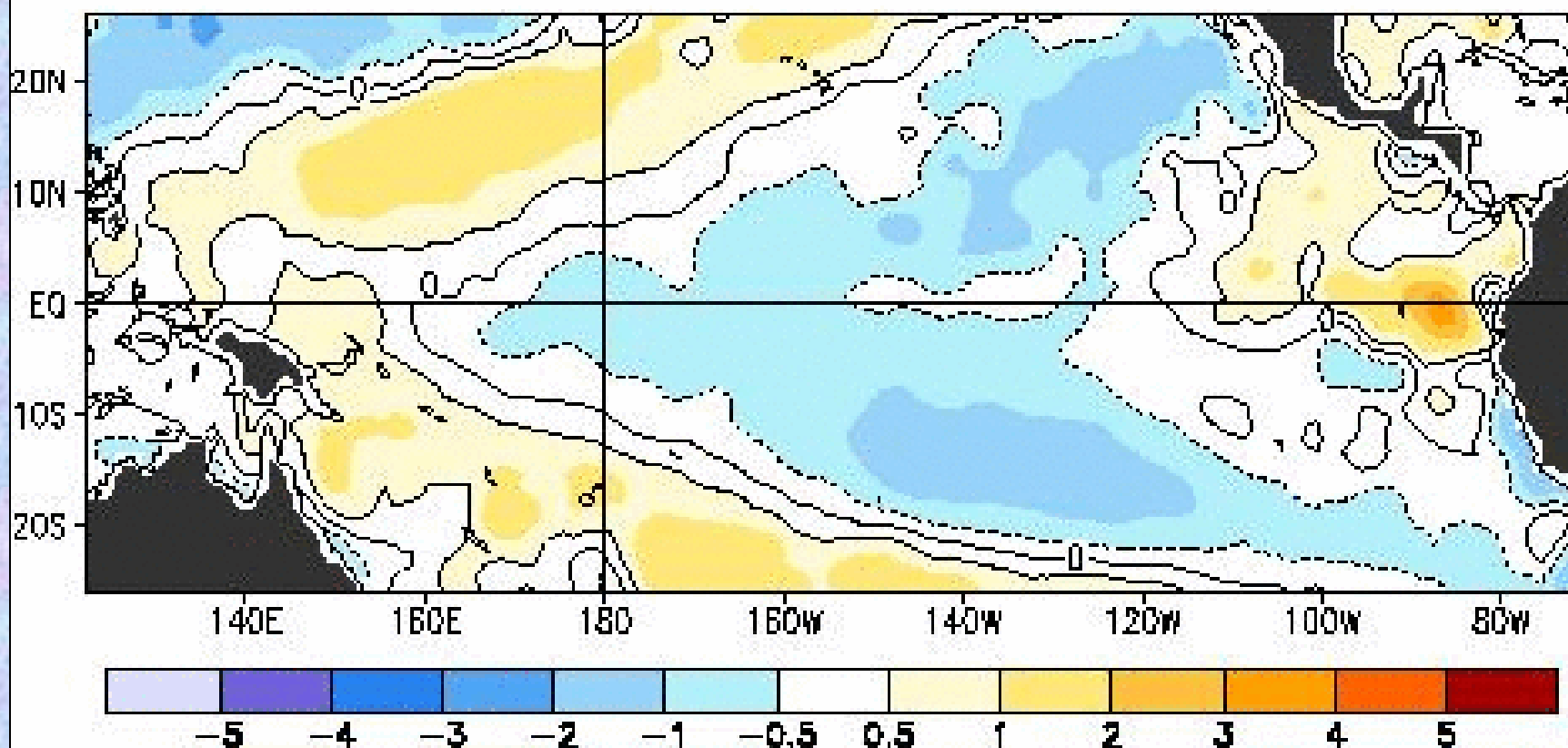


# ***Status of La Niña***

## ***April 27, 2011***



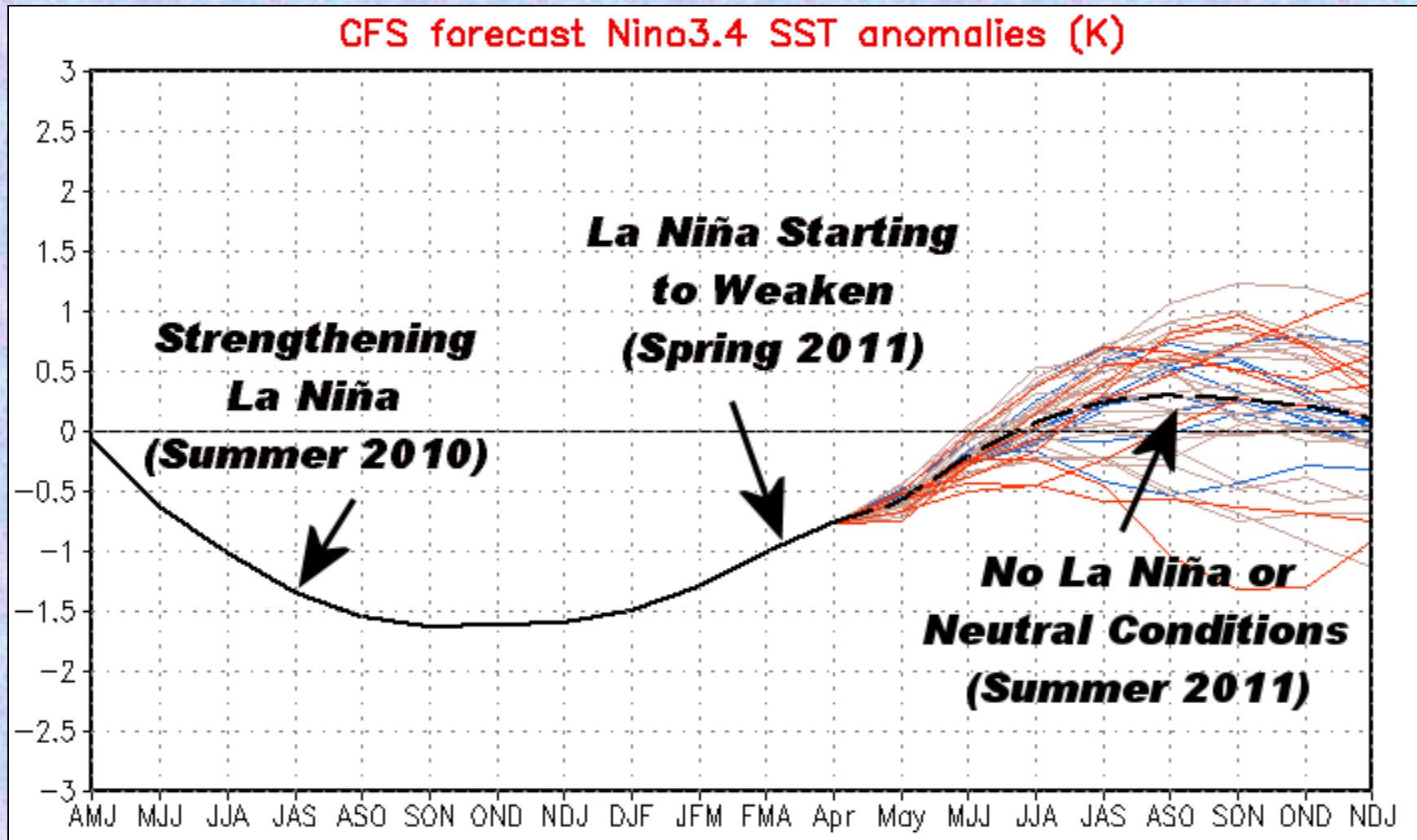
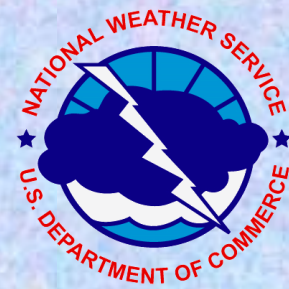
**Observed Sea Surface Temperature Anomalies (°C)**



**7-day Average Centered on 27 April 2011**



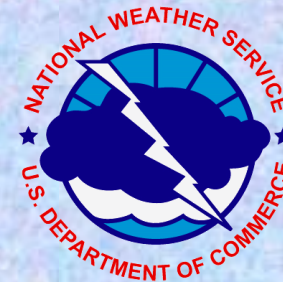
# Weakening La Niña



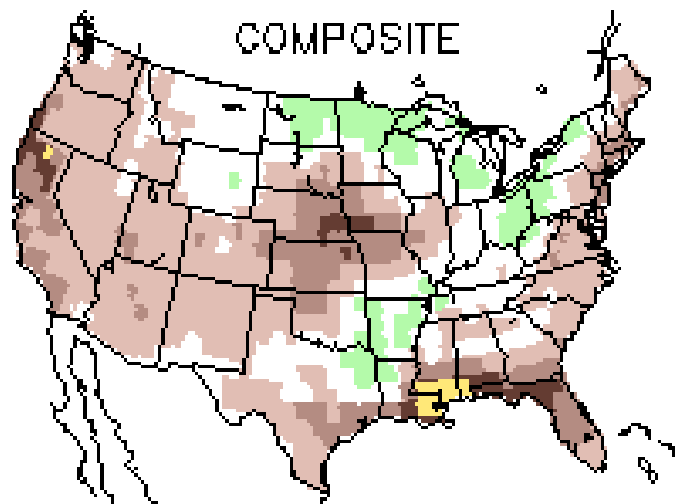


# ***Wet or Dry?***

## ***Mar – May, 2011***

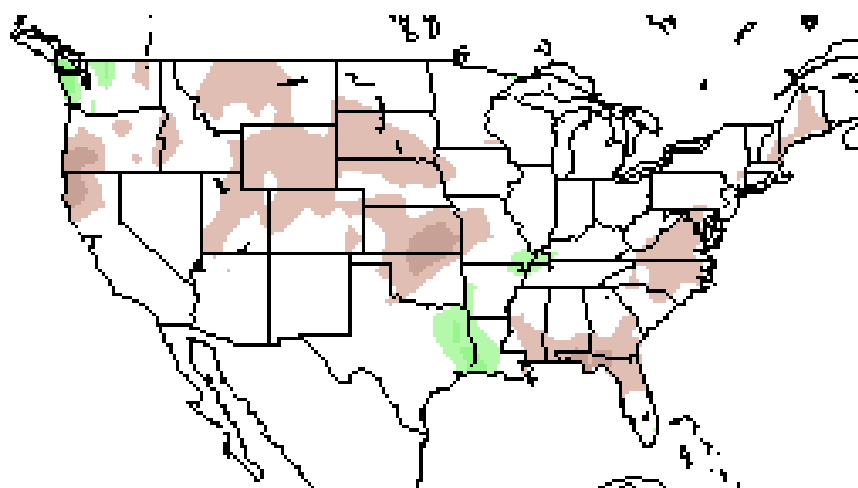


***La Niña***

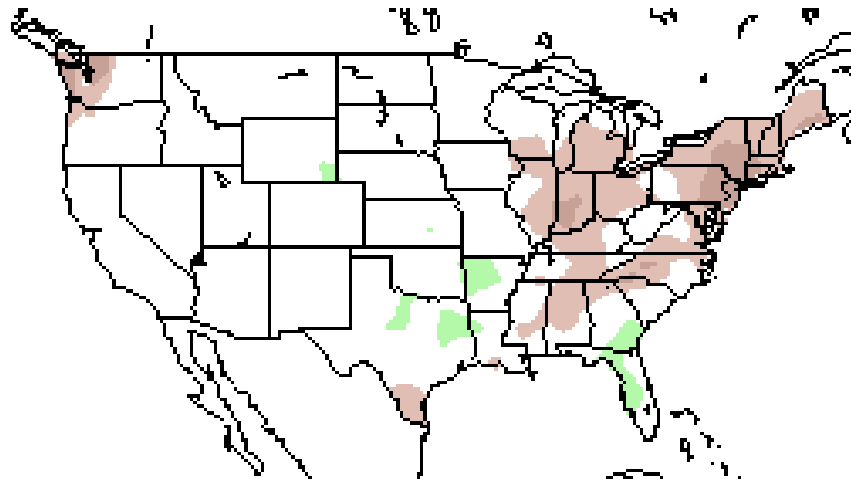


***Answer:***  
***Wet***

***AO+***



***AO-***

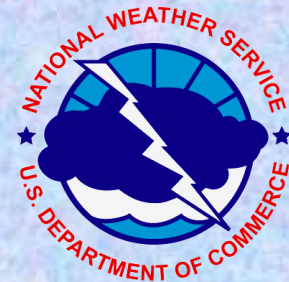




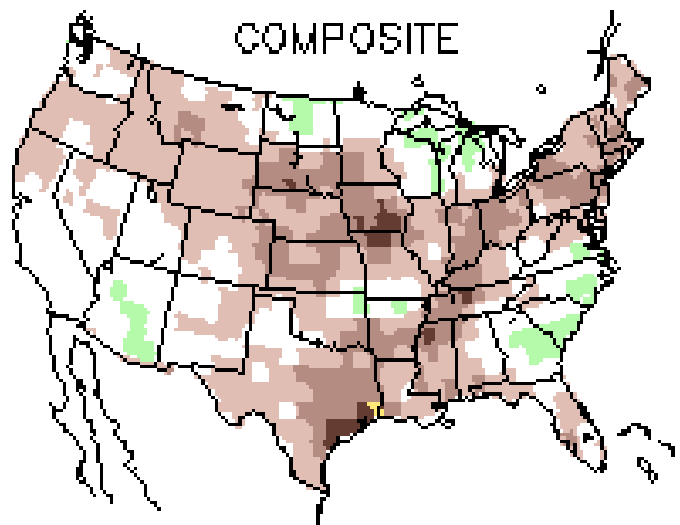


# ***Wet or Dry?***

## ***May – Jul, 2011***

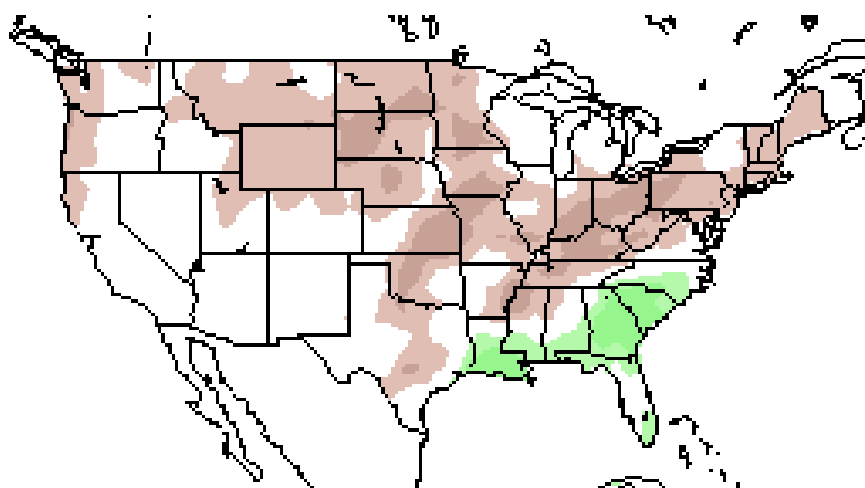


***La Niña***

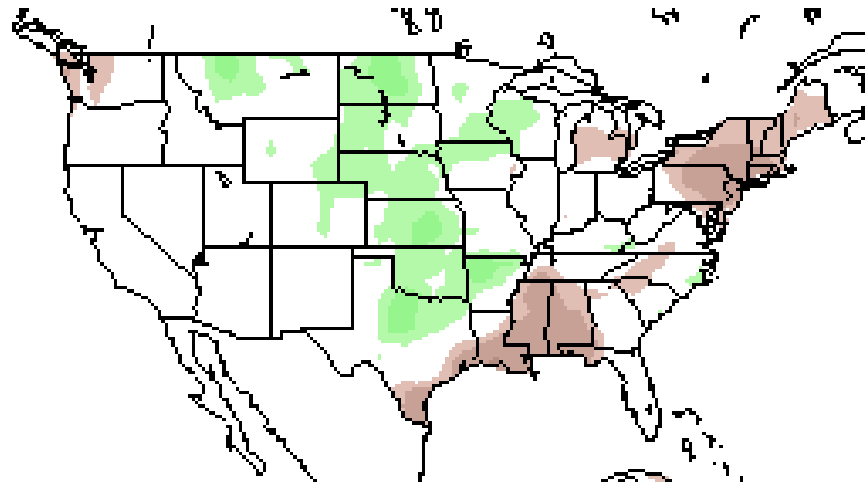


***Answer:  
Mixed***

***AO+***



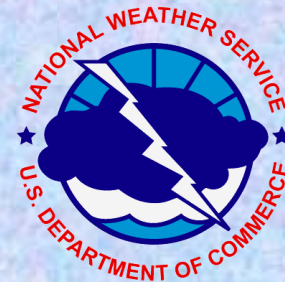
***AO-***



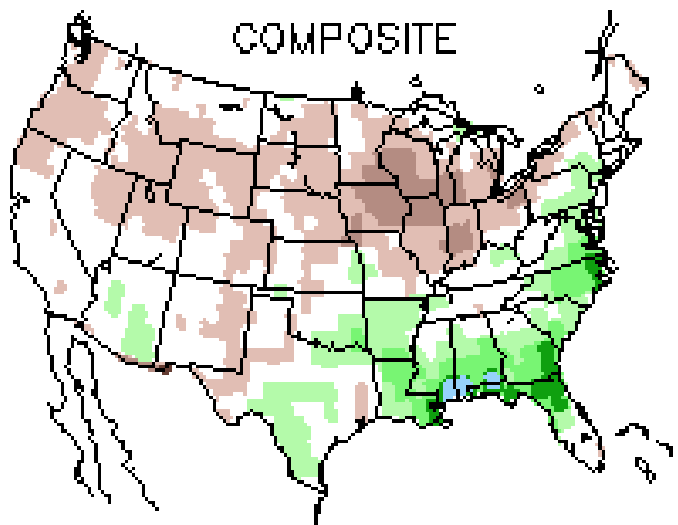


# ***Wet or Dry?***

## ***Jul – Sep, 2011***

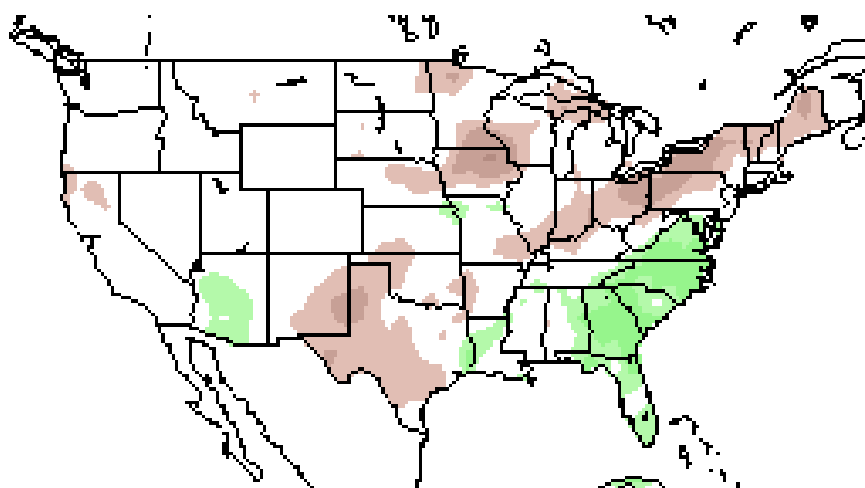


***La Niña***

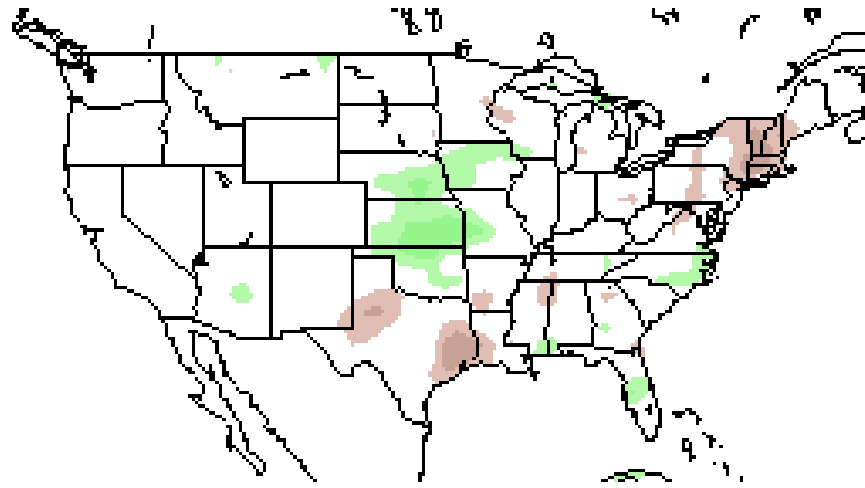


***Answer:***  
***Dry***

***AO+***



***AO-***





# ***The Tropics***



***Tropical system are most likely in the Atlantic given La Niña to neutral conditions because of decreasing wind shear.***

***This gives hurricanes a chance to organize without disruption.***

***A positive AO means a stronger Bermuda high, stronger trade winds, and increased activity in the southeast United States.***



# ***The Tropics***



***Tropical system are most likely in the Atlantic given La Niña to neutral conditions because of decreasing wind shear.***

***This gives hurricanes a chance to organize without disruption.***

***A positive AO means a stronger Bermuda high, stronger trade winds, and increased activity in the southeast United States.***



# ***The Tropics***



***Tropical system are most likely in the Atlantic given La Niña to neutral conditions because of decreasing wind shear.***

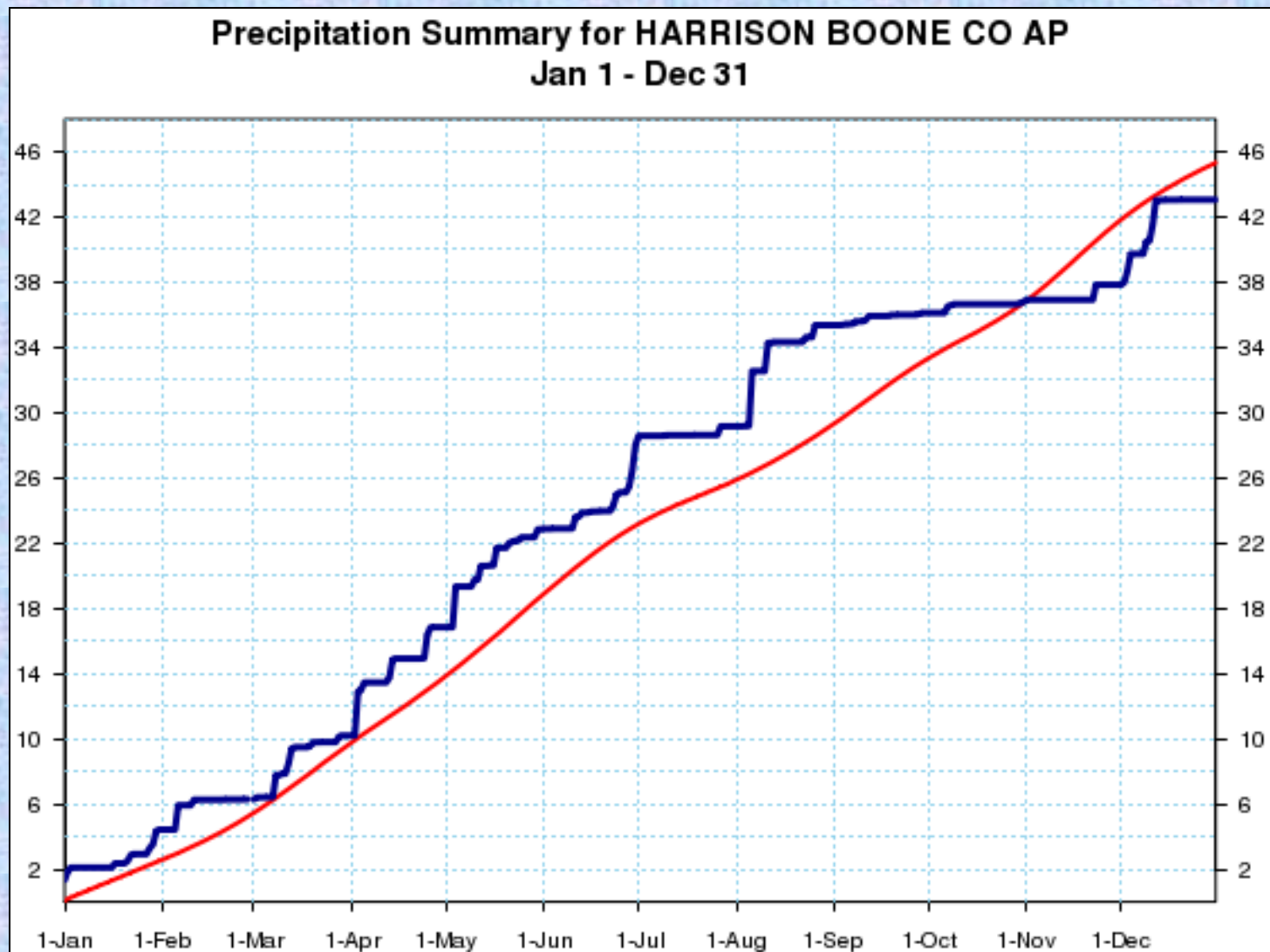
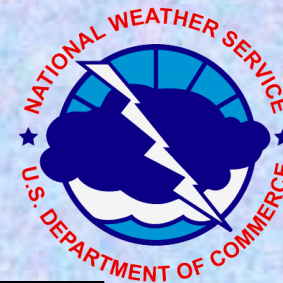
***This gives hurricanes a chance to organize without disruption.***

***A positive AO means a stronger Bermuda high, stronger trade winds, and increased activity in the southeast United States.***



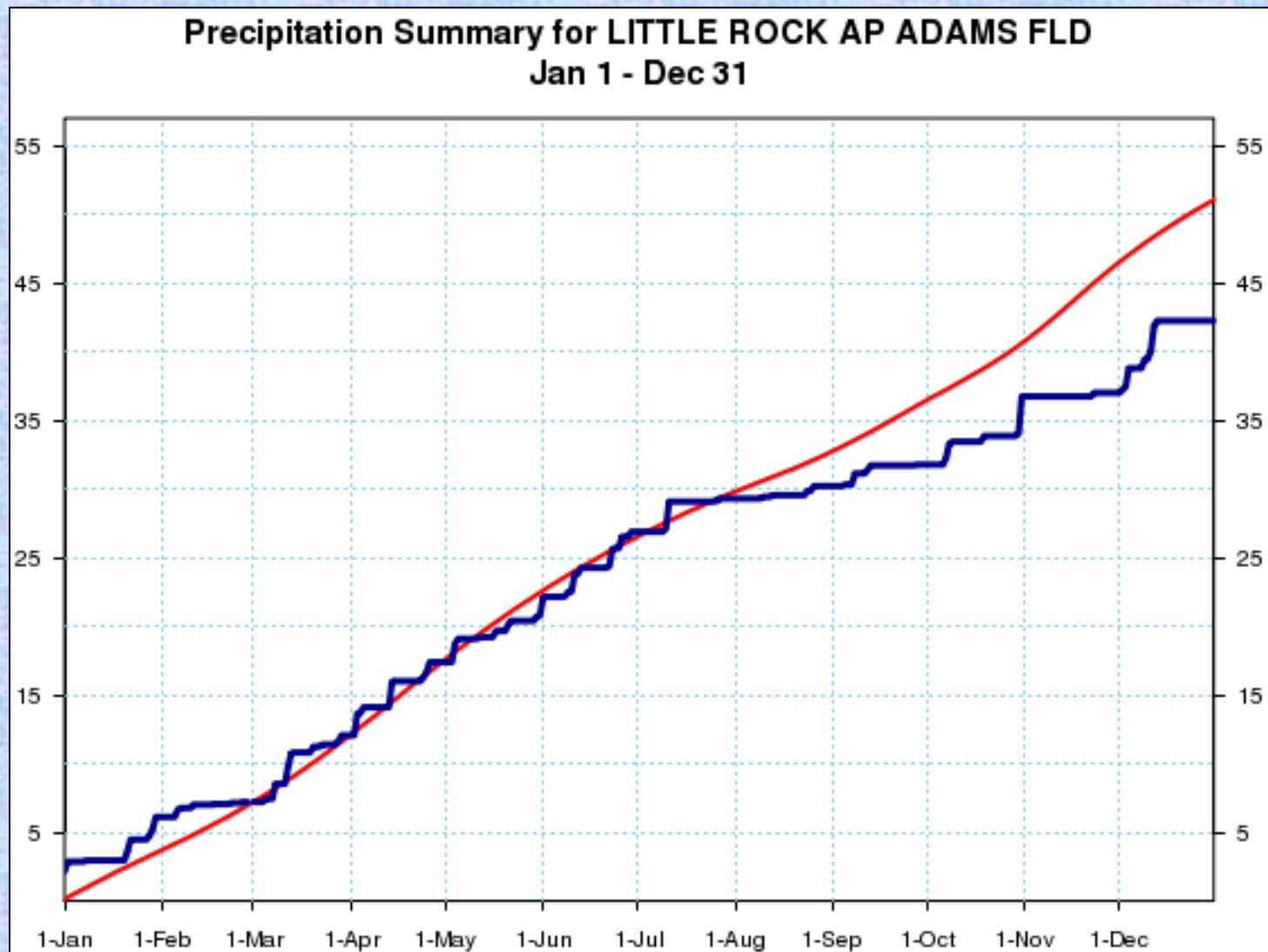
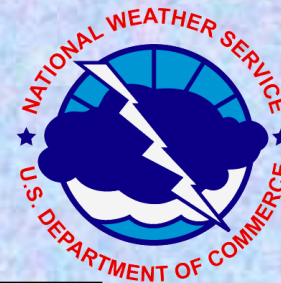


# ***In 1999***



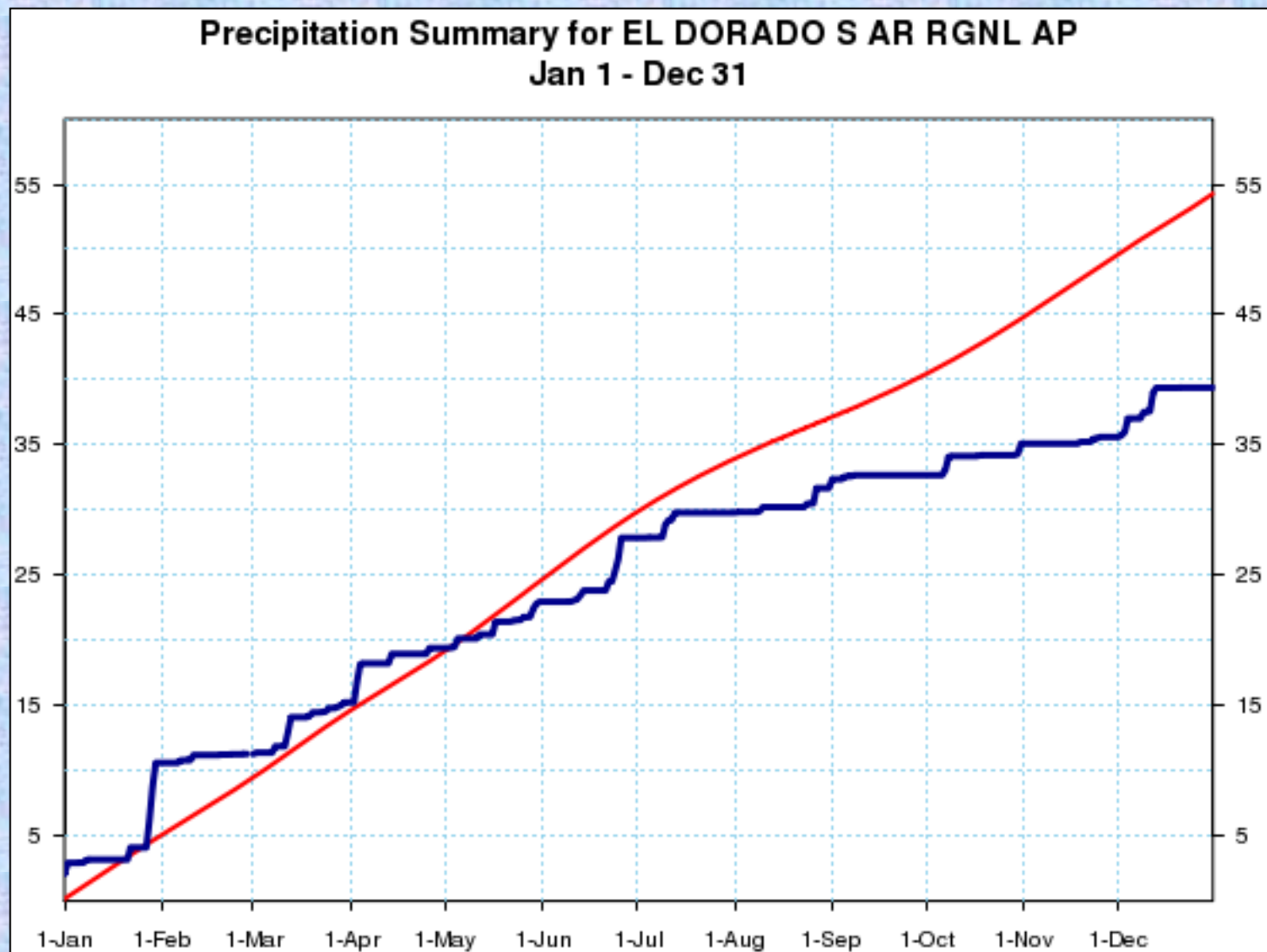
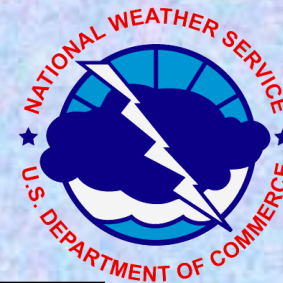


# In 1999





# ***In 1999***





# ***The Forecast***



***It looks like an active pattern (at/above normal rainfall) will carry through May given (weakening) La Niña conditions and a positive AO.***

***This normal to wet pattern may continue into the early summer before a dry late summer and fall.***

***If above normal rainfall is experienced this year, it is favored in northern Arkansas.***





# ***The Forecast***



***It looks like an active pattern (atlabove normal rainfall) will carry through May given (weakening) La Niña conditions and a positive AO.***

***This normal to wet pattern may continue into the early summer before a dry late summer and fall.***

***If above normal rainfall is experienced this year, it is favored in northern Arkansas.***





# ***The Forecast***



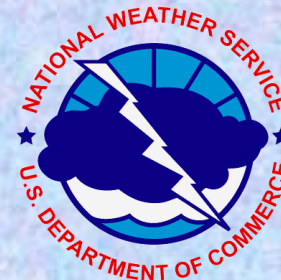
***It looks like an active pattern (atlabove normal rainfall) will carry through May given (weakening) La Niña conditions and a positive AO.***


***This normal to wet pattern may continue into the early summer before a dry late summer and fall.***

***If above normal rainfall is experienced this year, it is favored in northern Arkansas.***



# On the Web





## National Weather Service Weather Forecast Office

# Little Rock, AR

[Home](#) [Site Map](#) [News](#) [Organization](#)  [NWS](#)

Local forecast by  
"City, St" or Zip Code

**XML** RSS Feeds

**Current Hazards**

- Local
- Nationwide
- Outlooks
- Submit Report
- Recent Events
- GIS Data


**Forecasts**

- Local
- Forecast Discussion
- Activity Planner
- Graphical
- Tropical Weather
- Fire Weather
- Aviation Weather

### Top News of the Day

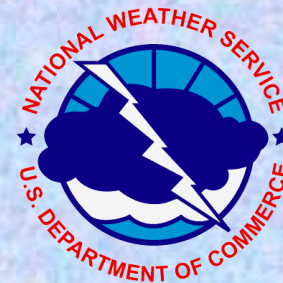
- [Major Flooding/Severe Weather on April 30-May 3, 2011](#)
- [Are you a disaster survivor? Did you know FEMA offers 3 ways to apply for Federal assistance?](#)
- [NWS Little Rock Is On Facebook](#)
- [Additional News Headlines](#) ←


### River Flooding






# On the Web





## National Weather Service Weather Forecast Office

### Little Rock, AR

HomeSite MapNewsOrganizationSearch for:   NWS

Local forecast by  
"City, St" or Zip Code

**XML** RSS Feeds









**Current Hazards**

- Local
- Nationwide
- Outlooks
- Submit Report
- Recent Events
- GIS Data

**Forecasts**

- Local
- Forecast Discussion
- Activity Planner
- Graphical
- Tropical Weather
- Fire Weather
- Aviation Weather

### Latest News Headlines

-  [Major Flooding/Severe Weather on April 30-May 3, 2011](#)
-  [Are you a disaster survivor? Did you know FEMA offers 3 ways to apply for Federal assistance?](#)
-  [NWS Little Rock Is On Facebook](#)
-  [Drought Status in Arkansas \(Through April, 2011\)](#) ←
-  [Upcoming Spotter Training Classes](#)
-  [Big Events in 2011](#)
-  [Severe Weather in Arkansas 2011 \(Brochure\)](#)
-  [Other Local, Regional, and National News](#)





# ***On the Web***



***Visit the National Weather Service Little Rock website at this address...***

***<http://www.srh.noaa.gov/lzk>***

***or Google...***

***National Weather Service Little Rock***



# ***On the Web***



***Visit the National Weather Service Little Rock website at this address...***

***<http://www.srh.noaa.gov/lzk>***

***or Google...***

***National Weather Service Little Rock***





***The End***



***Thanks for coming!***